

# Notice of Allowability

Application No.

09/828,940

Examiner

Lawrence W Luk

Applicant(s)

HANADA ET AL.

Art Unit

2838

## -- The MAILING DATE of this communication appears in the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/15/2004.
2. ☒ The allowed claim(s) is/are 3-5, 7-24, 27 and 28.
3. ☒ The drawings filed on 03 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Lawrence Luk*  
examiner

5/25/04

***Allowable Subject Matter***

1. Claims 3-5, 7-24, 27 and 28 are allowed.

Claims 4, 8 and 27 are allowed for reasons of record

Claims 5, 23, 24 and 28 are allowed due to their dependency on claim 4.

Claims 3, 7 and 9 allowed due to their dependency on claim 8.

Claim 10 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest a voltage detector which detects a terminal voltage across said capacitor; and a charge control device which controls a switching operation of said first switch to intermittently charge said capacitor with said battery via said primary path in the case where said terminal voltage  $V_c$  across said capacitor is smaller than a predetermined threshold value. It is these features found in the claim, as they are claimed in the combination, which has not been found taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claims 11 and 12 are allowed due to their dependency on claim 10.

Claim 13 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest an adjusting condenser connected in parallel with said battery, said adjusting condenser having a capacitance so that when said capacitor is charged with said battery, said overcurrent protective device is not actuated to interrupt an output current of said battery to said power supply circuit. It is these features found in the claim, as they are claimed in the combination, which has not been found taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

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Claims 14 and 15 are allowed due to their dependency on claim 13.

Claim 16 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest said charge control device repeats a main charging operation and a relay charging operation alternately; and wherein said first capacitor is connected to said second capacitor with said first capacitor being disconnected from said battery, in order to charge said second capacitor with power output from said first capacitor in said relay charging operation. It is these features found in the claim, as they are claimed in the combination, which has not been found taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claims 17-22 are allowed due to their dependency on claim 16.

### **Conclusion**

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence W Luk whose telephone number is (571)272-2080. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571)272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LWL  
May 25, 2004

*Lawrence Hull*  
*examiner*  
*5/25/04*